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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,808	10/29/2003	Min-Hsun Hsieh	KYCP0012USA	2807
27765	7590	10/03/2005	EXAMINER	
NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION			MITCHELL, JAMES M	
P.O. BOX 506			ART UNIT	
MERRIFIELD, VA 22116			2813	
			PAPER NUMBER	

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H/A

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/605,808	HSIEH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	James M. Mitchell	2813	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) 5,9,12,19 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-8,10,11,13-18 and 21-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

This office action is in response to applicant's election filed April 21, 2005.

#### ***Election/Restrictions***

Applicant's election without traverse of group I in the reply filed on April 21, 2005 is acknowledged.

Claims 5, 9, 12, 19 and 20 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 3, 6-8, 13, 17, 18 and 21-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear how there is a second reaction layer without a first. Furthermore if there is a first reaction layer then it is unclear as to the cooperative relationship between the first reaction layer, second reaction layer and remaining layers of said Light emitting device.

#### ***Claim Rejections - 35 USC § 102***

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4, 11, 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Heremans et al. (U.S. 6,504,180).

Heremans (Fig. 12) discloses:

- (cl.1) a light emitting device comprising a micro-reflection structure carrier (129); a reflection layer (128) formed over the microreflection structure carrier; a transparent adhesive layer (127) formed over the reflection layer; and a light emitting stack layer (i.e. layer between item 122 and 123 shown in Fig. 12);
- (cl. 4) and a first and second electrode formed on the same upper surface of the light emitting stack (124, 125);
- (cl. 11) where the carrier comprises Si (col. 17, Lines 24-25);
- (cl. 14) the reflection layer comprises Au (Col. 17, Lines 22-24);
- (cl. 15) and the transparent adhesive is polyimide (col. 17, Lines 22-24).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Heremans et al. (U.S. 6,504,180) as applied to claim 2 and further in combination with Uemura (U.S. 6,794,690).

Heremans does not appear to show the use of a first, Ti or Cr reaction (i.e. second adhesive) layer between a reflector (i.e. metal) and adhesive.

Uemura utilizes a Ti or Cr between a metal and adhesive (Col. 4, Lines 57-58, 64-66).

It would have been obvious to incorporate the use of a second adhesive such as Ti or Cr in order to improve adhesion as taught by Uemura (Col. 4, Lines 57-58).

Claim 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Heremans et al. (U.S. 6,504,180) as applied to claim 1 and further in combination with Kish Jr. (U.S. 6,015,719).

Heremans does not appear to the reflectors having pyramid or hemisphere shapes.

Kish (Fig. 8) utilizes reflectors having pyramid or hemisphere shapes.

It would have been obvious to one of ordinary skill in the art to modify the reflectors to have pyramid or hemispherical shape in order to direct light as taught by Kish (Col.5, Lines 44-55).

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### **Conclusion**

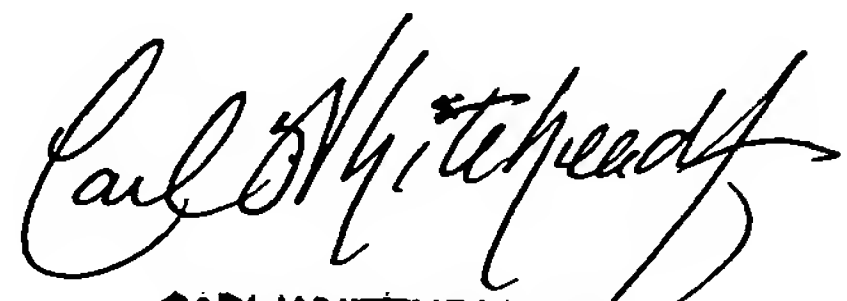
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art discloses in: Coman (U.S. 6,320,206) the use of multiple adhesive layers with reflectors; Cao (U.S. 2002/0175352) discloses various cladding layers including AlGaIn; the remaining cited art shows the use of pyramid and hemispherical shaped reflectors.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M. Mitchell whose telephone number is (571) 272-1931. The examiner can normally be reached on M-F 8:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl Whitehead Jr. can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jmm

  
CARL WHITEHEAD, JR.  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2000

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September 1, 2005

A large, stylized handwritten signature in black ink, consisting of several overlapping loops and a long horizontal stroke, is written over the date and extends upwards into the Art Unit field.